

No. 622,383.

Patented Apr. 4, 1899.

A. O'BRIEN.
SPRING SEAT FOR WATER CLOSETS.

(Application filed Mar. 4, 1898.)

(No Model.)

Fig. 1.

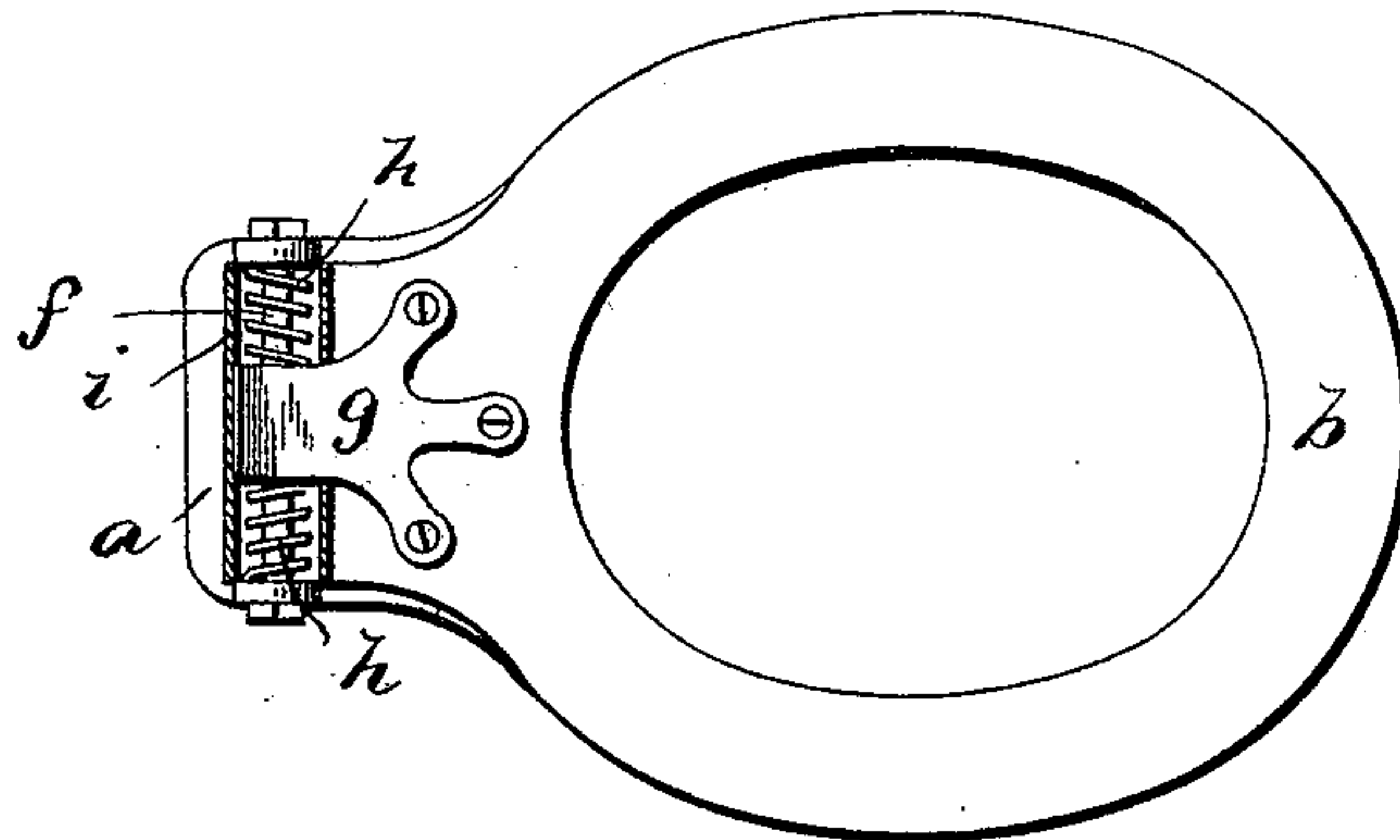


Fig. 2.

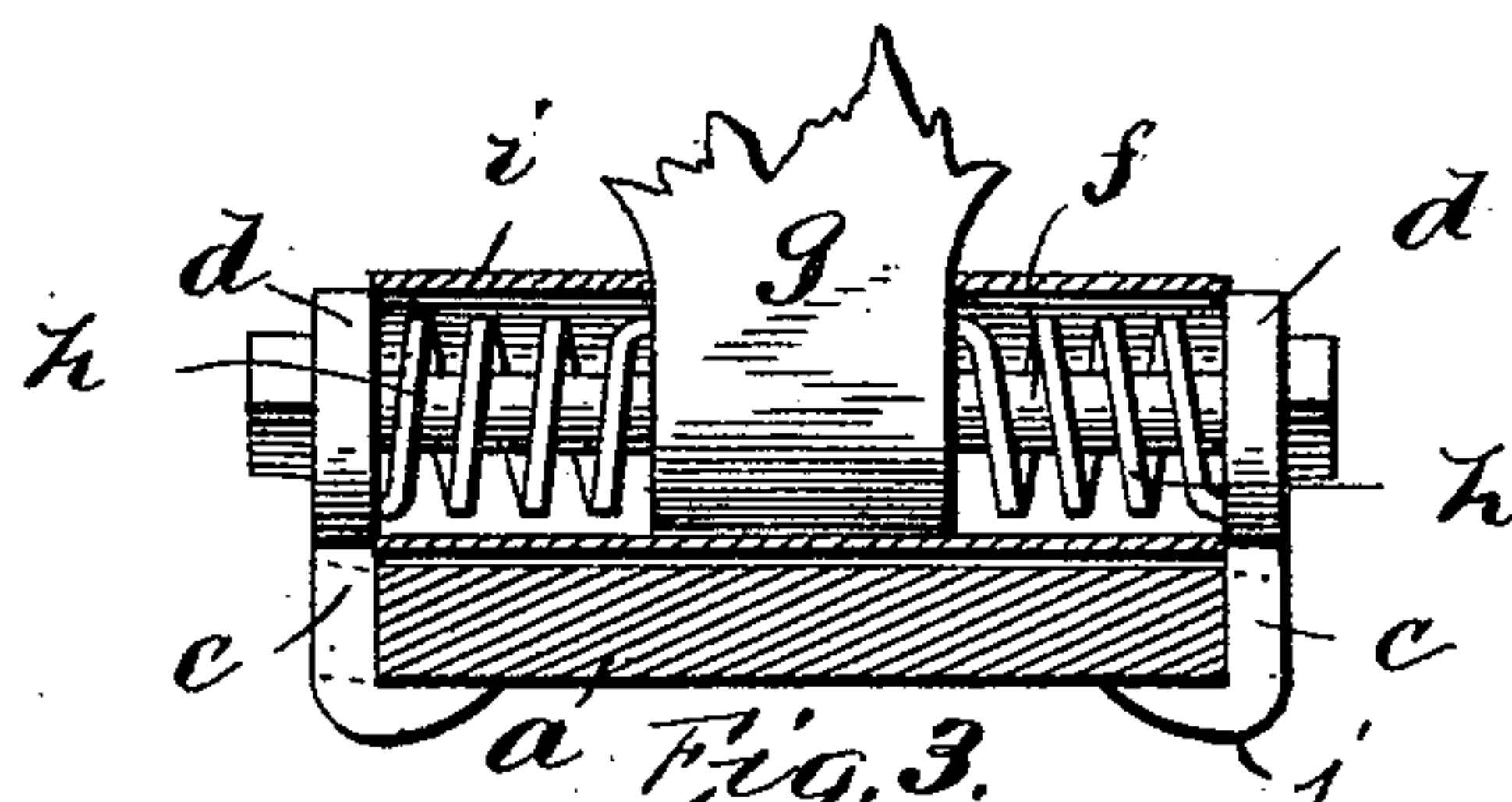


Fig. 3.

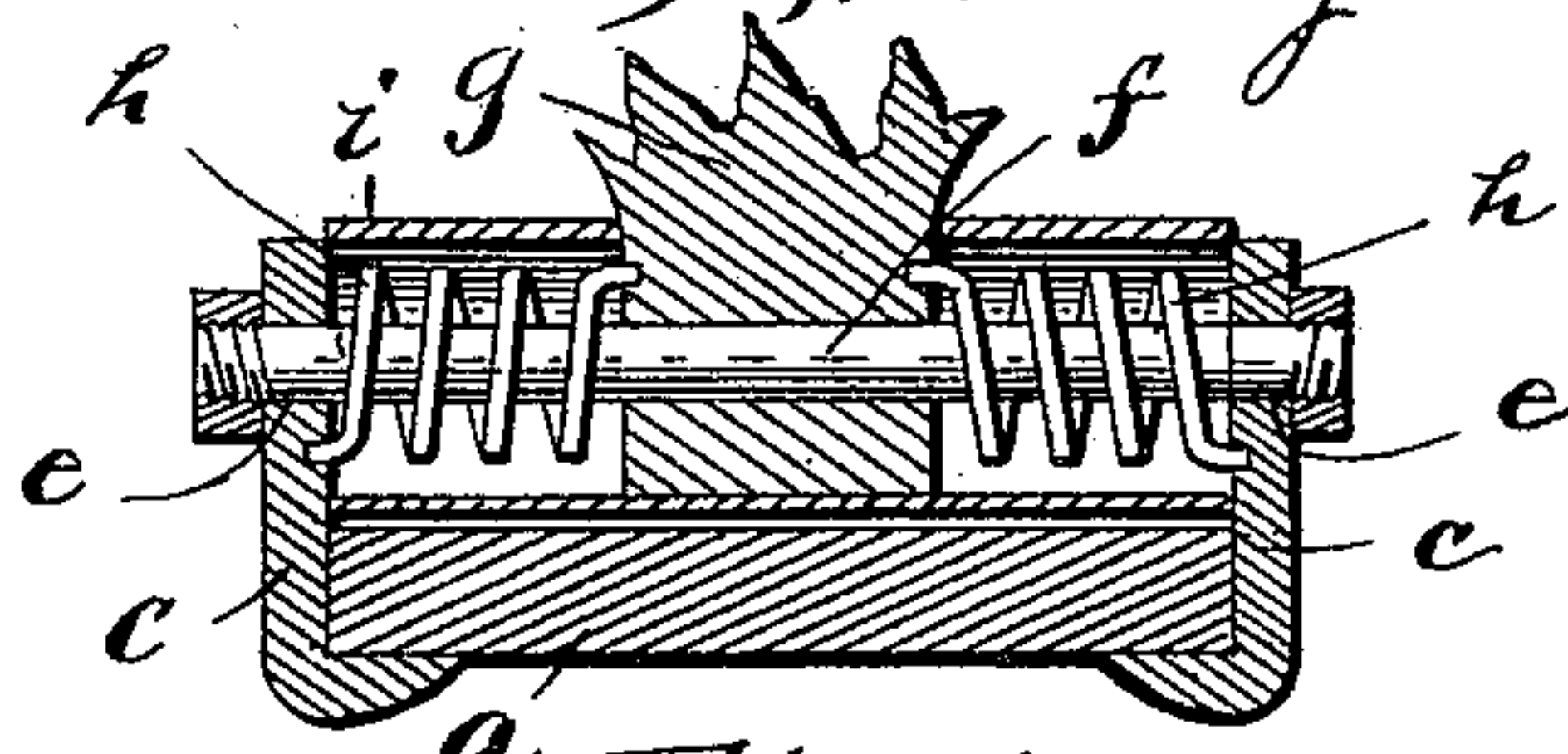
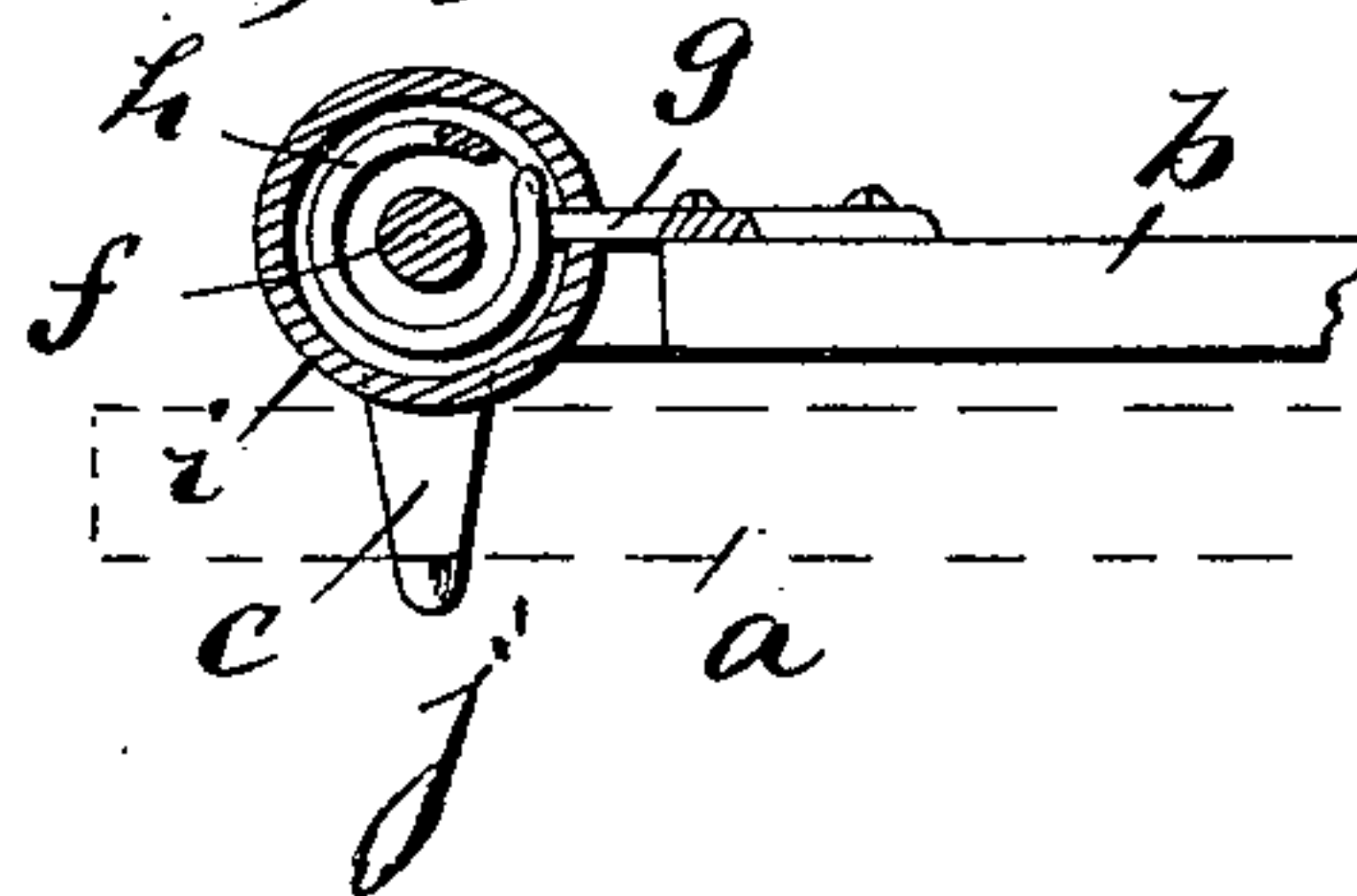


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

ARTHUR O'BRIEN, OF HELENA, MONTANA, ASSIGNOR OF THREE-FOURTHS
TO AUGUST FACK AND MARTIN A. MITCHELL, OF SAME PLACE.

SPRING-SEAT FOR WATER-CLOSETS.

SPECIFICATION forming part of Letters Patent No. 622,383, dated April 4, 1899.

Application filed March 4, 1898. Serial No. 672,498. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR O'BRIEN, of Helena, in the county of Lewis and Clarke and State of Montana, have invented certain new and useful Improvements in Spring-Seats for Water-Closets; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to certain new and useful improvements in spring seat-hinges, and more particularly to the class of water-closet seats.

The invention consists in certain novel features of construction and in combinations of parts more fully described hereinafter and particularly pointed out in the claim.

The object of the invention is to provide a spring-hinge for seats simple, cheap, and durable of construction, quick and accurate of operation, and composed of a minimum number of parts.

A further object of the invention is to provide a seat with a spring-hinge which can be easily and quickly attached to any closet-bowl.

A further object of the invention is to provide a spring-hinge the tension of which may be changed to elevate or lower the seat. In this instance it is adjusted for elevation.

Like letters of reference mark the same parts throughout the different views of the accompanying drawings, which form part of this specification, in which—

Figure 1 is a plan view of a seat, showing the spring-hinges in operative position and the casing in section. Fig. 2 is an elevation, somewhat enlarged, the seat raised and the casing in section. Fig. 3 is a central longitudinal section, and Fig. 4 is central vertical cross-section thereof.

Referring by letter to the drawings, *a* is the top of the pottery or bowl, and *b* the seat. *c* are the clamping-pins, having the enlarged circular flat heads *d*. *e* are openings cen-

trally located therein through which the rod *f* passes, forming the pivot of the seat *b* by means of the hinge-piece *g*, which is attached to the seat and carried by the rod *f* and actuated by the spiral springs *h*, which at one end are secured in the heads *d* of the clamping-pins *c* and coiled around the rod *f* toward and secured at their other end in the hinge-piece *g*, by which it is normally held in an elevated position.

Around the springs *h* and the pivot end of the hinge-piece *g* is provided a cylindrical covering *i*, adapted to move with the hinge-piece and fit snugly between the same and the circular flat heads *d* of the clamping-pins *c*.

The clamping-pins *c* fit in corresponding recesses in the top of the rear extension of the bowl and are provided with the toes *j*, which bear up against the under surface of said extension and which form perfectly rigid clamping means when the rod *f* is passed through the heads *d* and hinge-piece *g* and the nuts *r* screwed on.

If desired, the hinge-piece *g*, the casing *i*, and the pivot-rod *f* may be formed integral. Then to set the hinge it would only be necessary to place the springs, put on the clamping-pins, fix them to the bowl, and screw on the nuts to produce a simple, cheap, neat, and attractive spring-hinge.

It is obvious that various slight changes might be made in the forms, construction, and arrangement of the parts described without departing from the spirit and scope of my invention. Hence I do not wish to limit myself to the exact construction herein set forth, but consider myself entitled to all such changes as lie within the spirit of the invention.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

A spring-hinge for seats comprising the pottery, recesses therein, pins resting in said recesses having toes, the heads of said pins being flat and having openings therein, the pivot-rod carried by said openings having the securing-nuts by means of which the clamping-pins are secured to the pottery, the hinge-piece movable on said pivot-rod, spiral springs

having their inner ends secured to said hinge-piece, their outer ends secured to the securing-pins and a casing carried by the said hinge-piece and extending from one securing-
5 pin to the other completely covering the springs, substantially as described.

In testimony that I claim the foregoing as

my own I affix my signature in presence of two witnesses.

ARTHUR O'BRIEN. [L. s.]

Witnesses:

E. C. DUFFY,

F. C. BARRY.